



News Release

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St. Louis Corps District reservoir lakes slowing flood waters while balancing future needs

The U.S. Army Corps of Engineers has built and operates five multi-purpose lakes in the 28,000 square-mile St. Louis Engineer District. These lakes serve a number of purposes, including water supply, recreation, supporting wildlife and during times of high water and flooding, they capture excessive run off and hold it until flood waters recede. All of the lakes were created by damming rivers and impounding their water.

The five lakes are currently performing well to hold regional runoff. As they capture and hold water, they grow in acreage and cover land that either the Corps owns or private property for which the Corps has flood easements.

Three of the lakes are in Illinois: Lake Shelbyville and Carlyle Lake on the Kaskaskia River and Rend Lake on Big Muddy River. Two are in Missouri: Mark Twain Lake on the Salt River and Wappapello Lake on the St. Francis River.

All five lakes eventually drain into the Mississippi River through the tributaries from which they are formed.

Each lake is operated throughout the year in accordance with predetermined goals or targets for surface elevation called operation manuals. This is done to best ensure for such requirements as adequate water for safe summer boating, wildlife propagation and other uses. In the fall, as winter approaches, water levels are allowed to drop gradually until a "winter pool" is reached. This reduced level builds what is known as flood storage capacity for seasonally anticipated spring snow melts and higher precipitation levels.

In recent years, it has been difficult at some of the lakes to reestablish the higher summer pools levels desired for recreation and wildlife support due to dryer than normal weather patterns. But this year that has certainly not been a difficulty.

The operating manuals for the lakes take into account both the purposes of the lakes and current situations. For example, while it may be desirable to hold large quantities of water to keep farm fields downstream dry for planting or crop growth, this may not be possible if adequate flood storage is to be maintained for probable continued heavy precipitation.

At other times, such as during a dry summer, holding lakes at adequate levels for recreation and to support wildlife may be difficult, and doing so may cause low water levels downstream. On hot, particularly sunny and windy days, evaporation may be greater than inflow rates and lake levels will drop.

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St. Louis COE Reservoirs / 2-2-2

For example, at one point last year at Lake Shelbyville, even with dam gates set at barely a trickle of outflow water, and with hundreds of gallons of water per second were flowing into the lake, for several days the lake's elevation continued to drop until rain and cloudy, cooler weather moved into the area.

Public Safety is top priority

While operating these lakes to meet their multiple purposes is frequently a careful balancing act that seeks to best ensure all interests, public safety is always the number one priority. That may at times dictate increased discharges from the lakes to maintain flood capacity and continued stability and safety for the dams.

As of Sunday, June 15, the five lakes are performing as follows:

Lake	Elevation (in feet)	24 hr Chg	Flood Capacity (percent)	Inflow (cfs)	Outflow (cfs)	Target Elevation
Shelbyville	616.03	+0.06	51.6	2820	2100	599.7
Carlyle	451.74	-0.07	28.9	3910	4970	445.0
Rend	409.01	-0.09	73.2	200	700	405.0
Wappapello	359.90	+0.01	5.7	450	340	359.7
Mark Twain	617.11	+0.60	27.0	9440	2000	606.0

(cfs = cubic feet per second. 1 cfs is approximately 7.5 gallons per second)

Mark Twain Lake also generates renewable hydroelectric power with two water-powered generators. It is the only reservoir lake in the St. Louis District that can hold water that would otherwise enter the Mississippi River above St. Louis. The other four lakes contribute to flood level reductions on their rivers and on the Mississippi River below St. Louis.

Interested citizens may learn more about these lakes by visiting the U.S. Army Corps of Engineers St. Louis District website at: www.mvs.usace.army.mil Links there will take them via "Lakes and Recreation" to learn about the seasonal activities and other facts about the lakes. Visiting <http://mvs-wc.mvs.usace.army.mil/dresriv.html> will provide daily information on river gage readings on area rivers as well as the above data and more on lake levels.

Note to Editors: High quality images of the District's five lakes are available through the Public Affairs Office. Please call (314) 331-8002 / 8095.